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EXAMINER

BHATTACHARYA, SAM

ART UNIT	PAPER NUMBER
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2687

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/744,677

Applicant(s)

KOCH ET AL.

Examiner

Sam Bhattacharya

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 3, 2004 has been entered.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,075,982 to Donovan et al. in view of Kennedy, III et al. (U.S. Patent 6,009,330) and Kantola et al. (US 6,230,020).

As to claim 1, Figures 1, 3A, and 3B in Donovan disclose a telecommunications method for establishing a connection with a mobile device of a participant, comprising:

 sending a desired destination number from the mobile device to a callback computer; and
 establishing a connection by the callback computer between said mobile device of the participant and said desired destination number ("when the prepaid subscriber 104 enters calling information (i.e., dials a telephone number) via the wireless handset 106, the wireless handset

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106 signals to a mobile switching center 108” (Col. 3, lines 60-63). “The mobile switching center 108 directs the call to the wireless enhanced service platform 112” (Col. 4, lines 3-4). “The wireless enhanced service platform 112 routes debit calls to the prepaid platform 116” (Col. 4, lines 25-26). “The prepaid platform 116 completes the call via a local exchange network 118” (Col. 4, lines 50-51). “The local exchange network 118 terminates the call at a telephone 120 which if answered by the receiver 122, completes the call connection” (Col. 4, lines 55-57). See also Col. 14, lines 45-53), wherein:

before establishment of said connection, a remaining credit of said participant is checked in a prepaid module connected to the callback computer (“the prepaid platform 116 determines whether the subscriber 104 has sufficient funds in his or her account to connect the call” (Col. 4, lines 34-37). “If there are sufficient funds, step 328 is performed. In step 328, the prepaid platform 116 sets up the call to the local exchange network 118” (Col. 11, lines 28-30), and

said connection is established only if the remaining credit exceeds a predetermined amount (see Col. 11, lines 20-28).

However, the Donovan reference does not disclose sending a short message from the mobile device to a callback computer and the establishing step includes calling the mobile device by the callback computer. The Kennedy reference teaches sending a short message from the mobile device to a callback computer (see Col. 5, lines 3-9, Col. 11, line 51 to Col. 12, line 5), and the establishing step includes calling the mobile device by the callback computer (see Col. 7, lines 27-37).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Donovan to comprise sending a short message

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including a desired destination number from the mobile device to a callback computer and the establishing step that includes calling the mobile device by the callback computer, as taught by Kennedy, in order to utilize existing, inexpensive data communications technology to reduce the traffic and complexity of the mobile voice communications network.

The combination of Donovan and Kennedy fails to disclose sending a short message to initiate a call from the mobile device to the desired destination number.

However, Kantola et al. Discloses a method for transmitting a short message to initiate a call from a mobile device to a desired destination number. See FIG. 5 and col. 5, lines 29-32. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Donovan and Kennedy by initiating a call during the transmission of a short message, as taught by Kantola, so that the a user can conveniently use both text and voice communications simultaneously for communicating information suited to both of them.

3. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,075,982 to Donoyan et al. in view of Kennedy, III et al. (U.S. Patent 6,009,330) and Kantola et al. (US 6,230,020) in view of Walker (U.S. Patent 5,825,863), and further in view of Kasai et al. (U.S. Patent 5,815,560).

As to claim 2, Donovan-Kennedy-Kantola discloses the telecommunications method according to claim 1. However, it does not disclose the prepaid module calculates a remaining airtime with the aid of at least one tariff table and said prepaid module transmits the remaining airtime to the callback computer. The Walker reference teaches the prepaid module calculates the remaining airtime and said prepaid module transmits the remaining airtime to the callback

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computer (“the call processing computer 12 determines the current balance therein at step 44. The current balance of the account, as well as other cardholder information (e.g., billing information), is also stored in authorized cardholder accounts database 26. The balance of the account can be characterized as a monetary value, call time values or units values” (Col. 4, lines 37-43). “When the cardholder’s calling-card account has a sufficient balance to cover the cost of the telephone call to the called telephone station 22, the call processing computer 12 retrieves the called number from the storage memory 24 and communicates the called number to the central switching network 16” (Col. 4, lines 62-67)).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Donovan-Kennedy-Kantola wherein the prepaid module calculates the remaining airtime and said prepaid module transmits the remaining airtime to the callback computer, as taught by Walker, in order to determine whether a prepaid account has a sufficient balance to cover the cost of a call.

However, Donovan-Kennedy-Kantola-Walker does not disclose the use of a tariff table to calculate the remaining airtime. The Kasai reference teaches the use of a tariff table to calculate the cost of a call and thus remaining airtime of a prepaid account (“the tariff table determination database as shown in FIG. 19 using the routing number as the object is also provided. As its output result, a telephone tariff table (for first three minutes, each minute after first three minutes, additional tariff and discounted tariffs for time and day, etc.) is previously set” (Col. 8, lines 50-55)).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Donovan-Kennedy-Kantola-Walker wherein

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the prepaid module calculates the remaining airtime with the aid of at least one tariff table, as taught by Kasai, in order to determine the time value of the remaining prepaid balance to cover the cost of a call.

As to claim 3, as cited in claim 2, Donovan-Kennedy-Kantola-Walker-Kasai discloses the telecommunications method according to claim 2, wherein said prepaid module calculates said remaining airtime on the basis of an indication of location of said participant stored in a database (“the balance of the account can be characterized as a monetary value, call time value or units value. Employing a units value enables different charges to be made for local, long distance or international calls, as well as an adjustment to be made for factors such as the time, date and/or week when the call is placed and the like” (Walker, Col. 4, lines 38-46)).

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,075,982 to Donovan et al. in view of Kennedy, III et al. (U.S. Patent 6,009,330) Kantola et al. (US 6,230,020), and further in view of Walker (U.S. Patent 5,825,863), Kasai et al. (U.S. Patent 5,815,560) and Alvesalo (U.S. Patent 5,384,824).

As to claim 4, Donovan-Kennedy-Kantola-Walker-Kasai discloses the telecommunications method according to claim 3. The Donovan reference further discloses the database is the home location register of a home public land mobile network of the participant (“the wireless enhanced service platform 112 routes calls by accessing information in the home location register 110” (Col. 4, lines 8-10). “In step 312, the wireless enhanced service platform 112 queries the home location register 110 for routing information. The home location register 110 maintains two types of subscriber information: subscription information and location

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information” (Col. 6, lines 38- 42)). However, Donovan-Kennedy-Kantola-Walker-Kasai does not expressly disclose the indication of location is a visitor location register address of the participant. The Alvesalo reference teaches the indication of location is a visitor location register address of the participant (“within the GSM network the new location information is stored in a known manner in a Visitor Location Register (VLR), which updates the location information in the Home Location Register (HLR) if the mobile station is not previously known thereto” (Col. 4, lines 26-30)).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Donovan-Kennedy-Kantola-Walker-Kasai wherein the indication of location is a visitor location register address of the participant, as taught by Alvesalo, in order to provide new location indication of a mobile to the HLR.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,075,982 to Donovan et al. in view of Kennedy, III et al. (U.S. Patent 6,009,330) and Kantola et al. (US 6,230,020), and further in view of Walker (U.S. Patent 5,825,863).

As to claim 5, Donovan-Kennedy-Kantola discloses the telecommunications method according to claim 1. However, it does not disclose the connection is truncated by the callback computer if the remaining credit of the participant has run out. The Walker reference discloses “once the telephone call is connected, the balance of the calling-card account is debited and monitored” (Col. 6, lines 19-20). “If the account balance falls below a predetermined minimum, the call processing computer 12 accesses the cardholder entered information database 28 to determine whether to charge the cardmember’s second account at step 98” (Col. 6, lines 23-27).

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“If additional charges are not authorized, then the call processing computer sends a message to that effect at step 104, and the call is disconnected” (Col. 6, lines 29-32).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Donovan-Kennedy-Kantola wherein the connection is truncated by the callback computer if the remaining credit of the participant has run out, as taught by Walker, in order to monitor and terminate a call when there is insufficient debit to cover the cost of the call.

6. Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,075,982 to Donovan et al. in view of Kennedy, III et al. (U.S. Patent 6,009,330) and Kantola et al. (US 6,230,020), and further in view of Joensuu et al. (U.S. Patent 5,966,653).

As to claim 6, Donovan-Kennedy-Kantola discloses the telecommunications method according to claim 1. However, it does not disclose the mobile device is a GSM device and the short message is an unstructured supplementary services data message. The Joensuu reference discloses “with the introduction of the Global System for Mobile (GSM) or Personal Communications System (PCS), call forwarding subscriber feature activations are no longer performed over a traffic channel” (Col. 4, lines 30-33). “A number of different connection-less communications protocols have been introduced to transport unstructured user defined data between a mobile station and a serving MSC. Such protocols can be further utilized to transport user entered forward-to-number from the mobile station to the serving MSC for the purposes of activating a call forwarding feature. One such protocol is an Unstructured Supplementary Service Data (USSD) messages” (Col. 4, lines 47-54).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Donovan-Kennedy-Kantola wherein the mobile device is a GSM device and the short message is an unstructured supplementary services data message, as taught by Joensuu, in order to request an activation of a subscriber feature from a mobile station without establishing a speech connection with the serving MSC.

As to claim 13, Donovan-Kennedy-Kantola discloses the telecommunications method of claim 1. However, it does not disclose the short message includes a prefix in addition to the destination number, the prefix identifying a special service. The Joensuu reference teaches the short message includes a prefix in addition to the destination number, the prefix identifying a special service (see Col. 5, lines 7-29 and Figure 3).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Donovan-Kennedy-Kantola wherein the short message includes a prefix in addition to the destination number, the prefix identifying a special service, as taught by Joensuu, in order to request an activation of a subscriber feature from a mobile station without establishing a speech connection with serving MSC.

7. Claims 7, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,075,982 to Donovan et al. in view of Kennedy, III et al. (U.S. Patent 6,009,330) and Kantola et al. (US 6,230,020), and further in view of Kasai et al. (U.S. Patent 5,815,560).

As to claim 7, Figure 1 in Donovan discloses a system for establishing a connection with a mobile device 106 of a participant 104, wherein the system is configured to receive a short message and to identify the participant who has sent the short message, the system comprising:

a callback computer 112 configured to establish a connection between said participant and a destination number indicated in said short message by at least calling the mobile device; and

a prepaid module 116 connected to said callback computer 112 and configured to store a prepaid amount for at least certain participants (“when the prepaid subscriber 104 enters calling information (i.e., dials a telephone number) via the wireless handset 106, the wireless handset 106 signals to a mobile switching center 108” (Col. 3, lines 60-63). “The mobile switching center 108 directs the call to the wireless enhanced service platform 112” (Col. 4, lines 3-4). “The wireless enhanced service platform 112 routes debit calls to the prepaid platform 116” (Col. 4, lines 25-26). “The prepaid platform 116 determines whether the subscriber 104 has sufficient funds in his or her account to connect the call” (Col. 4, lines 34-37). “If there are sufficient funds, step 328 is performed. In step 328, the prepaid platform 116 sets up the call to the local exchange network 118” (Col. 11, lines 28-30)).

However, it does not disclose a callback computer configured to establish a connection between said participant and a destination number indicated in said short message by at least calling the mobile device. The Kennedy reference teaches a callback computer configured to establish a connection between said participant and a destination number indicated in said short message by at least calling the mobile device (see Col. 5, lines 3-9, Col. 11, line 51 to Col. 12, line 5, and Col. 7, lines 27-37).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Donovan to comprise a callback computer configured to establish a connection between said participant and a destination number indicated

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in said short message by at least calling the mobile device, as taught by Kennedy, in order to utilize existing, inexpensive data communications technology to reduce the traffic and complexity of the mobile voice communications network.

The combination of Donovan and Kennedy fails to disclose sending a short message to initiate a call from the mobile device to the desired destination number.

However, Kantola et al. Discloses a method for transmitting a short message to initiate a call from a mobile device to a desired destination number. See FIG. 5 and col. 5, lines 29-32. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Donovan and Kennedy by initiating a call during the transmission of a short message, as taught by Kantola, so that the a user can conveniently use both text and voice communications simultaneously for communicating information suited to both of them.

However, Donovan-Kennedy-Kantola does not disclose the prepaid module contains at least one tariff table configured to be used to calculate a remaining airtime associated with the participant. The Kasai reference teaches the use of a tariff table to calculate the cost of a call and thus remaining airtime of a prepaid account ("the tariff table determination database as shown in FIG. 19 using the routing number as the object is also provided. As its output result, a telephone tariff table (for first three minutes, each minute after first three minutes, additional tariff and discounted tariffs for time and day, etc.) is previously set" (Col. 8, lines 50-55)).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Donovan-Kennedy-Kantola wherein the prepaid module contains at least one tariff table configured to be used to calculate a remaining airtime

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associated with the participant, as taught by Kasai, in order to determine the time value of the remaining prepaid balance to cover the cost of a call.

As to claim 9, as cited in claim 7, Donovan-Kennedy-Kantola-Kasai discloses the system according to claim 7, wherein the prepaid module is configured to calculate the remaining airtime of said participant on the basis of indications of location of said participant stored in a home location register of the system (Donovan; “the home location register 110 maintains two types of subscriber information: subscription information and location information” (Col. 6, lines 40-42). “One type of location information is the last mobile switching center 108 that was registered as serving the subscriber 104. Other location information is used to calculate tax on the cost of a call” (Col. 6, lines 46-50)) and with the aid of said tariff table (Kasai; “the tariff table determination database as shown in FIG. 19 using the routing number as the object is also provided. As its output result, a telephone tariff table (for first three minutes, each minute after first three minutes, additional tariff and discounted tariffs for time and day, etc.) is previously set” (Col. 8, lines 50-55)), and transmit the remaining airtime to said callback computer.

As to claim 11, Donovan-Kennedy-Kantola-Kasai discloses the system according to claim 7. The Donovan reference (Figure 1) further discloses a home location register 110, configured to receive the short message and to store a location indication associated with the participant (“the wireless enhanced service platform 112 routes calls by accessing information in the home location register 110” (Col. 4, lines 8-10). “In step 312, the wireless enhanced service platform 112 queries the home location register 110 for routing information. The home location register 110 maintains two types of subscriber information: subscription information and location information” (Col. 6, lines 38- 42). “The subscriber is identified using a mobile identification

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number. Location information is used to properly route and bill the call. In step 314, the home location register 110 returns to the wireless enhanced service platform 112 a prepaid routing number, the subscriber's mobile switching center identification number, and the location identifier for tax calculation" (Col. 6, lines 51-57)); and

an interface module 112, configured to receive the short message from the home location register 110, and to transmit the destination number, a call number of the participant, and the location indication, to the prepaid module ("the wireless enhanced service platform 112 routes calls by accessing information in the home location register 110" (Col. 4, lines 8-10). "In step 312, the wireless enhanced service platform 112 queries the home location register 110 for routing information. The home location register 110 maintains two types of subscriber information: subscription information and location information" (Col. 6, lines 38- 42). "The subscriber is identified using a mobile identification number. Location information is used to properly route and bill the call. In step 314, the home location register 110 returns to the wireless enhanced service platform 112 a prepaid routing number, the subscriber's mobile switching center identification number, and the location identifier for tax calculation" (Col. 6, lines 51-57)).

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,075,982 to Donovan et al. in view of Kennedy, III et al. (U.S. Patent 6,009,330) and Kantola et al. (US 6,230,020), and further in view of Kasai et al. (U.S. Patent 5,815,560) and Sjodin (U.S. Patent 6,631,140).

As to claim 8, Donovan-Kennedy-Kantola-Kasai discloses the system according to claim 7, wherein said prepaid module is connected to a home location register of the system (Donovan;

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“in step 312, the wireless enhanced service platform 112 queries the home location register 110 for routing information. The home location register 110 maintains two types of subscriber information: subscription information and location information” (Col. 6, lines 38- 42). “In step 316, the wireless enhanced service platform 112 sends a transaction capabilities application part message to the prepaid platform 116 to transfer information needed to process and bill the prepaid wireless call” (Col. 6, line 66 to Col. 7, line 2)). However, it does not disclose the connection is via a mobile application part interface. The Sjodin reference teaches use of a mobile application part interface to connect an HLR to a mobility server (Figure 2; “mobile application part (MAP) interfaces are introduced into the mobility servers 48 and 52, respectively. The MAP is specified in European Telecommunications Standard (ETS) 300599, GSM 09.02 version 4.11.1, November 1995” (Col. 7, lines 61-64). “Five conventional MAP operations are supported by the MAP interface. Namely, update location (which is termed “registration notification” in IS-41), insert subscriber data, delete subscriber data, cancel location, and provide roaming number (termed “routing request” in IS-41) operations are supported by the MAP interface” (Col. 8, lines 2-8)).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Donovan-Kennedy-Kantola-Kasai wherein the prepaid module can be connected to a home location register of the system via a mobile application part interface, as taught by Sjodin, in order to provide a standard interface for communicating with an HLR for different operations.

9. Claims 10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,075,982 to Donovan et al. in view of Kennedy, III et al. (U.S. Patent 6,009,330) and

Kantola et al. (US 6,230,020), and further in view of Kasai et al. (U.S. Patent 5,815,560) and Joensuu et al. (U.S. Patent 5,966,653).

As to claim 10, Donovan-Kennedy-Kantola-Kasai discloses the system according to claim 7. However, it does not disclose the mobile device is a GSM device and the short message is an unstructured supplementary services data message. The Joensuu reference discloses “with the introduction of the Global System for Mobile (GSM) or Personal Communications System (PCS), call forwarding subscriber feature activations are no longer performed over a traffic channel” (Col. 4, lines 30-33). “A number of different connection-less communications protocols have been introduced to transport unstructured user defined data between a mobile station and a serving MSC. Such protocols can be further utilized to transport user entered forward-to-number from the mobile station to the serving MSC for the purposes of activating a call forwarding feature. One such protocol is an Unstructured Supplementary Service Data (USSD) messages” (Col. 4, lines 47-54).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Donovan-Kennedy-Kantola-Kasai wherein the mobile device is a GSM device and the short message is an unstructured supplementary services data message, as taught by Joensuu, in order to request an activation of a subscriber feature from a mobile station without establishing a speech connection with serving MSC.

As to claim 14, Donovan-Kennedy-Kantola-Kasai discloses the telecommunications method of claim 7. However, it does not disclose the short message includes a prefix in addition to the destination number, the prefix identifying a special service. The Joensuu reference teaches

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the short message includes a prefix in addition to the destination number, the prefix identifying a special service (see Col. 5, lines 7-29 and Figure 3).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Donovan-Kennedy-Kantola-Kasai wherein the short message includes a prefix in addition to the destination number, the prefix identifying a special service, as taught by Joensuu, in order to request an activation of a subscriber feature from a mobile station without establishing a speech connection with serving MSC.

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,075,982 to Donovan et al. in view of Kennedy, III et al. (U.S. Patent 6,009,330) and Kantola et al. (US 6,230,020), and further in view of Kasai et al. (U.S. Patent 5,815,560), Sjodin (U.S. Patent 6,631,140) and Joensuu et al. (U.S. Patent 5,966,653).

As to claim 12, Donovan-Kennedy-Kantola-Kasai discloses the system according to claim 11. However, it does not disclose the interface module is configured to access the home location register by means of a mobile application part protocol via a signal signaling system number 7 signaling system, and the short message is an unstructured supplementary services data message. The Sjodin reference teaches means of a mobile application part protocol via a signal signaling system number 7 signaling system to connect an HLR to a mobility server (Figure 2; “mobile application part (MAP) interfaces are introduced into the mobility servers 48 and 52, respectively. The MAP is specified in European Telecommunications Standard (ETS) 300599, GSM 09.02 version 4.11.1, November 1995” (Col. 7, lines 61-64). “Five conventional MAP operations are supported by the MAP interface. Namely, update location (which is termed “registration notification” in IS-41), insert subscriber data, delete subscriber data, cancel

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location, and provide roaming number (termed “routing request” in IS-41) operations are supported by the MAP interface” (Col. 8, lines 2-8). Figures 7 and 22 show SS7 signaling channel from HLR to the mobility servers 48A, 52A).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Donovan-Kennedy-Kantola-Kasai wherein the interface module is configured to access the home location register by means of a mobile application part protocol via a signal signaling system number 7 signaling system, as taught by Sjodin, in order to provide a standard interface for communicating with an HLR for operations.

However, Donovan-Kennedy-Kantola-Kasai-Sjodin does not disclose the short message is an unstructured supplementary services data message. The Joensuu reference discloses “a number of different connection-less communications protocols have been introduced to transport unstructured user defined data between a mobile station and a serving MSC. Such protocols can be further utilized to transport user entered forward-to-number from the mobile station to the serving MSC for the purposes of activating a call forwarding feature. One such protocol is an Unstructured Supplementary Service Data (USSD) messages” (Col. 4, lines 47-54).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Donovan-Kennedy-Kantola-Kasai-Sjodin wherein the short message is an unstructured supplementary services data message, as taught by Joensuu, in order to request an activation of a subscriber feature from a mobile station without establishing a speech connection with the serving MSC.

Response to Arguments

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11. Applicant's arguments with respect to claims 1 and 7 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Bhattacharya whose telephone number is (571) 272-7917.

The examiner can normally be reached on Weekdays, 9-6, with first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid can be reached on (571) 272-7922.

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sb

 4/15/05
ELISEO RAMOS-FELICIANO
PATENT EXAMINER